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McAndrews, Held & Malloy, Ltd.
34th Floor
500 West Madison Street
Chicago, IL 60661

EXAMINER	
CONTINO, PAUL F	
ART UNIT	**PAPER NUMBER**
2114	

DATE MAILED: 06/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/044,140	GUDAPAKKAM ET AL.	
	Examiner	Art Unit	
	Paul Contino	2114	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 January 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) *21* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20 and 22-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *21* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 January 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION: Non-Final Rejection

Election/Restrictions

1. During a telephone conversation with Attorney Chris George on June 15, 2006, a provisional election was made without traverse to prosecute the invention of Gudapakkam et al., claims 1-20 and 22-25. Affirmation of this election must be made by applicant in replying to this Office action. Claim 21 is withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Objections

2. Claim 6 is objected to because of the following informality: in line 2 the Examiner is uncertain if the Applicant meant to include "system" before "subsystem manager". Appropriate correction is required if necessary.

3. Claim 20 is objected to because of the following informality: in line 8 the statement "flagging an error at least one" does not make sense. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-6, 11-13, 16-19, and 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hershey et al. (U.S. Patent No. 6,175,934) in view of GE (*From InSite to OnSite: Leveraging Technology for Rapid Service Growth*).

As in claim 1, Hershey et al. teaches of a distributed system, comprising:

a system manager generating function commands for at least one function from a set of functions including at least one of system boot, system reset, system shutdown, power failure, and error handling *(Fig. 1 #51; column 3 lines 50-59, where central diagnostic system 51 is interpreted as a system manager and a diagnostic routine is interpreted as an error handling function)*;

a subsystem capable of performing at least one function from said set of functions, said subsystem including at least one task operator capable of executing at least one task associated with each function performed by said subsystem *(Figs. 1-3; column 3 lines 50-54 and column 5 lines 29-66, where remote site 60 is interpreted as a subsystem and diagnostic command module 118 is interpreted as a task operator)*; and

a subsystem manager receiving said function commands and in response thereto providing task instructions to said task operator concerning said at least one function *(column 4 lines 22-31 and lines 55-63, and column 5 lines 29-66, where diagnostic interface 110 is interpreted as a subsystem manager)*, said task operator supplying task results regarding completion of said task instructions to said subsystem manager, said subsystem manager

transmitting function results regarding completion of said function commands to said system manager based on said task results *(column 4 lines 22-31, column 5 lines 29-31, and column 5 line 60 through column 6 line 7, where diagnostic data being passed from subsystem manager 110 to system 51 implies completion of a task)*.

However, Hershey et al. fails to teach of a medical diagnostic imaging system. GE teaches of remote diagnostics for a medical imaging system *(page 1 left column)*.

It would have been obvious to a person skilled in the art at the time the invention was made to have included the medical imaging system as taught by GE in the invention of Hershey et al. This would have been obvious because the invention of GE offers an efficient means of diagnosing a medical system *(page 1 right column and page 2 first paragraph on right)*.

As in claim 2, Hershey et al. teaches of a plurality of subsystems and an equal plurality of subsystem managers *(Figs. 1-3; column 4 lines 22-23, where subsystem 60 containing diagnostic unit 53 is paired with a subsystem manager 110)*.

As in claim 3, Hershey et al. teaches of a plurality of subsystems connected to said system manager through a common communications channel *(Fig. 1 #55; column 2 line 65 through column 3 line 18, communication service 55)*.

As in claim 4, Hershey et al. teaches the set of functions include at least one level *(column 3 lines 55-66 and column 5 lines 49-55, where the routine inherently has at least one level in order for a diagnosis to occur)*.

As in claim 5, Hershey et al. teaches the set of functions include at least one phase *(Figs. 4 and 5; column 5 lines 31-33, where DIME and DAME are interpreted as phases)*.

As in claim 6, Hershey et al. teaches the system manager and [[system]] subsystem manager constitute state machines *(column 5 lines 49-55, where system manager 51 and subsystem manager 110 are interpreted as controlling states during system diagnostics)*.

As in claim 11, Hershey et al. teaches of a method for managing a distributed system, said method comprising:

transmitting a function command from a system manager to a subsystem manager for a subsystem *(Fig. 1 #51; column 3 lines 50-59, where central diagnostic system 51 is interpreted as a system manager; column 4 lines 22-31 and lines 55-63, and column 5 lines 29-66, where remote site 60 is interpreted as a subsystem and diagnostic interface 110 is interpreted as a subsystem manager and the diagnostic routine inherently contains a command for diagnosing the system)*; and

relaying said function command from said subsystem manager for said subsystem to a task operator for said subsystem *(Figs. 1-3; column 3 lines 50-54 and column 5 lines 29-66, where modules 116 and 118 are collectively interpreted as a task operator)*.

However, Hershey et al. fails to teach of a medical diagnostic imaging system. GE teaches of remote diagnostics for a medical imaging system *(page 1 left column)*.

It would have been obvious to a person skilled in the art at the time the invention was made to have included the medical imaging system as taught by GE in the invention of Hershey

et al. This would have been obvious because the invention of GE offers an efficient means of diagnosing a medical system *(page 1 right column and page 2 first paragraph on right)*.

As in claim 12, Hershey et al. teaches of receiving notification of completion of said function command from said task operator at said subsystem manager *(column 4 lines 22-31, column 5 lines 29-31, and column 5 line 49 through column 6 line 15, where diagnostic data being passed from task operator 116/118 to subsystem manager 110 completion of a task)*.

As in claim 13, Hershey et al. teaches of receiving notification of completion of said function command from said subsystem manager at said system manager *(column 4 lines 22-31, column 5 lines 29-31, and column 5 line 60 through column 6 line 15, where diagnostic data being passed from subsystem manager 110 to system 51 implies completion of a function command)*.

As in claim 16, Hershey et al. teaches of a plurality of subsystems and an equal plurality of subsystem managers *(Figs. 1-3; column 4 lines 22-23, where subsystem 60 containing diagnostic unit 53 is paired with a subsystem manager 110)*.

As in claim 17, Hershey et al. teaches of a plurality of task operators *(Figs. 1-3; column 4 lines 55-64, where task operators 116/118 are present in each subsystem 60)*.

As in claim 18, Hershey et al. teaches said function command comprises error handling *(Fig. 1 #51; column 3 lines 50-59, where a diagnostic routine is interpreted as an error handling function inherently comprising commands)*.

As in claim 19, Hershey et al. teaches said task operator executes at least one task, including error handling *(column 5 lines 49-55)*.

As in claim 22, Hershey et al. teaches of a method for synchronizing a system during system boot, said method comprising:

initiating transition of at least one subsystem to a desired state *(Figs. 1-3; column 5 lines 49-55, where apparatus 62 is interpreted as a subsystem)*; and

monitoring and coordinating said transition of the at least one subsystem to the desired state in order to synchronize said system at the desired state *(column 5 line 29 through column 6 line 15, where the process of diagnosing a system by altering the state of the apparatus under test is interpreted as synchronization)*.

However, Hershey et al. fails to teach of a medical diagnostic imaging system. GE teaches of remote diagnostics for a medical imaging system *(page 1 left column)*.

It would have been obvious to a person skilled in the art at the time the invention was made to have included the medical imaging system as taught by GE in the invention of Hershey et al. This would have been obvious because the invention of GE offers an efficient means of diagnosing a medical system *(page 1 right column and page 2 first paragraph on right)*.

As in claim 23, the combined invention of Hershey et al. and GE teaches of a plurality of medical diagnostic imaging subsystems in the medical diagnostic imaging system *(Hershey et al.: Figs. 1-3 #62)*.

* * *

5. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hershey et al. in view of GE, further in view of Havekost et al. (U.S. Patent No. 6,871,299).

As in claim 7, the combined invention of Hershey et al. and GE teaches of a subsystem and a task operator in a medical diagnostic system. However, the combined invention of Hershey et al. and GE fails to teach of an indication of a level at which a failure occurred. Havekost et al. teaches of a failure occurring in a subsystem in which a task operator generates data indicative of a level at which the failure occurred *(Figs. 1-3; column 6 lines 20-47 and column 7 lines 42-67, where a field device is interpreted as a task operator and the failure of a component such as a valve being reported to a controller 36 is interpreted as indicative of a failure at a level of a function)*.

It would have been obvious to a person skilled in the art at the time the invention was made to have included the failure indication as taught by Havekost et al. in the combined invention of Hershey et al. and GE. This would have been obvious because the invention of Havekost et al. reduces resources necessary to carry out fault tolerance distributed system *(column 16 lines 21-38)*.

As in claim 8, the combined invention of Hershey et al. and GE teaches of a subsystem and a task operator in a medical diagnostic system. However, the combined invention of Hershey et al. and GE fails to teach of an indication of a level at which a failure occurred. Havekost et al. teaches of a failure occurring in a subsystem in which a task operator generates data indicative of a phase at which the failure occurred *(Figs. 1-3; column 6 lines 20-47 and column 11 line 24 through column 12 line 21)*.

It would have been obvious to a person skilled in the art at the time the invention was made to have included the failure indication as taught by Havekost et al. in the combined invention of Hershey et al. and GE. This would have been obvious because the invention of Havekost et al. reduces resources necessary to carry out fault tolerance distributed system *(column 16 lines 21-38)*.

* * *

6. Claims 9, 10, 14, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hershey et al. in view of GE, further in view of Turek et al. (U.S. Patent No. 6,460,070).

As in claim 9, the combined invention of Hershey et al. and GE teaches of a subsystem and a subsystem manager. However, the combined invention of Hershey et al. and GE fails to teach of indicating a subsystem at which a failure occurred. Turek et al. teaches when a failure occurs in a subsystem, a subsystem manager generates data indicative of the subsystem at which said failure occurred *(column 5 lines 43-60 and column 7 line 15 through column 8 line 33, where an agent is utilized to determine the subsystem node where the fault occurred)*.

It would have been obvious to a person skilled in the art at the time the invention was made to have included the fault indication as taught by Turek et al. in the combined invention of Hershey et al. and GE. This would have been obvious because the distributed diagnostic and management system as taught by Turek et al. reduces resources necessary for determining and correcting a fault in such a system through automation and minimal coding *(column 2 lines 1-21)*.

As in claim 10, the combined invention of Hershey et al. and GE teaches of a task operator and a subsystem manager. However, the combined invention of Hershey et al. and GE fails to teach of indicating a task operator at which a failure occurred. Turek et al. teaches when a failure occurs in a task operator, a subsystem manager generates data indicative of the task operator at which said failure occurred *(column 5 lines 43-60 and column 7 line 15 through column 8 line 33, where an agent is utilized to determine the task operator node where the fault occurred)*.

It would have been obvious to a person skilled in the art at the time the invention was made to have included the fault indication as taught by Turek et al. in the combined invention of Hershey et al. and GE. This would have been obvious because the distributed diagnostic and management system as taught by Turek et al. reduces resources necessary for determining and correcting a fault in such a system through automation and minimal coding *(column 2 lines 1-21)*.

As in claim 14, the combined invention of Hershey et al. and GE teaches of a task operator and a subsystem manager. However, the combined invention of Hershey et al. and GE

fails to teach of an error message. Turek et al. teaches of receiving an error message from a task operator at a subsystem manager *(column 3 lines 47-64 and column 5 lines 34-48, where a node in the network is interpreted as a task operator reporting an error/fault to a subsystem gateway 16)*.

It would have been obvious to a person skilled in the art at the time the invention was made to have included the error messaging as taught by Turek et al. in the combined invention of Hershey et al. and GE. This would have been obvious because the distributed diagnostic and management system as taught by Turek et al. reduces resources necessary for determining and correcting a fault in such a system through automation and minimal coding *(column 2 lines 1-21)*.

As in claim 15, the combined invention of Hershey et al. and GE teaches of a subsystem manager and a system manager. However, the combined invention of Hershey et al. and GE fails to teach of an error message. Turek et al. teaches of receiving an error message from a subsystem manager at a system manager *(column 3 lines 47-64 and column 5 lines 34-48, where a node in the network is interpreted as a subsystem manager reporting an error/fault to a system manager)*.

It would have been obvious to a person skilled in the art at the time the invention was made to have included the error messaging as taught by Turek et al. in the combined invention of Hershey et al. and GE. This would have been obvious because the distributed diagnostic and management system as taught by Turek et al. reduces resources necessary for determining and correcting a fault in such a system through automation and minimal coding *(column 2 lines 1-21)*.

* * *

7. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Turek et al. in view of GE.

As in claim 20, Turek et al. teaches of a method for locating errors in a system, said method comprising:

distributing control of said system among a plurality of hierarchical levels, said plurality of hierarchical levels including a top level and a plurality of secondary levels *(Figs. 1-3; column 3 lines 47-64, where servers 14 and/or gateway machines 16 may be interpreted as a top level and gateway machines 16 and/or endpoints 18 may be interpreted as secondary levels)*;

transmitting system commands from said top level to said plurality of secondary levels *(column 5 lines 32-42, where software agents are interpreted as containing system commands)*;

flagging an error [for] at least one of said plurality of secondary levels *(column 5 lines 43-48 and column 6 line 67 through column 7 line 2, where the reporting of a fault/error is interpreted as flagging an error)*; and

receiving notification at said top level from said plurality of secondary levels, said notification comprising status of said plurality of secondary levels including said error at said at least one of said plurality of secondary levels *(columns 7-9, where the software agents facilitate error notification)*.

However, Turek et al. fails to teach of a medical diagnostic imaging system or managing errors. GE teaches of remote diagnostics for a medical imaging system *(page 1 left column)*.

It would have been obvious to a person skilled in the art at the time the invention was made to have included the medical imaging system as taught by GE in the invention of Turek et al. This would have been obvious because the invention of GE offers an efficient means of diagnosing a medical system *(page 1 right column and page 2 first paragraph on right)*.

* * *

8. Claims 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hershey et al. in view of GE, further in view of Mori et al. (U.S. Patent No. 4,627,055).

As in claim 24, the combined invention of Hershey et al. and GE teaches of a medical imaging subsystem and a state. However, the combined invention of Hershey et al. and GE fails to teach of synchronization of a plurality of subsystems. Mori et al. teaches of a plurality of distributed diagnostic subsystems synchronized at a desired state *(column 2 lines 13-16 and lines 58-61)*.

It would have been obvious to a person skilled in the art at the time the invention was made to have included the synchronization of subsystems as taught by Mori et al. in the combined invention of Hershey et al. and GE. This would have been obvious because the invention of Mori et al. offers a fail-safe distributed diagnostics environment *(column 1 lines 7-24)*.

As in claim 25, the combined invention of Hershey et al. and GE teaches of a medical imaging subsystem and a state. However, the combined invention of Hershey et al. and GE fails

to teach of an error signal. Mori et al. teaches of an error signal when a diagnostic subsystem fails to transition to a desired state *(column 8 lines 35-40, where the status register flag and the message passed to other subsystems are interpreted as error signals)*.

It would have been obvious to a person skilled in the art at the time the invention was made to have included the error signal as taught by Mori et al. in the combined invention of Hershey et al. and GE. This would have been obvious because the invention of Mori et al. offers a fail-safe distributed diagnostics environment *(column 1 lines 7-24)*.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: U.S. Patent No. 6,856,825 Hahn discloses a medical diagnostic system.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Contino whose telephone number is (571) 272-3657. The examiner can normally be reached on Monday-Friday 9:00 am - 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Baderman can be reached on (571) 272-3644. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PFC
6/19/2006

SCOTT BADERMAN
SUPERVISORY PATENT EXAMINER